On-Farm Irrigation **PUBLICATION**

Microirrigation for Trees and Vines

A Handbook for Water Managers
Water Management Handbook Series
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Micro-irrigation of Trees and Vines is the sixth in a series of water management handbooks prepared by the University of California Irrigation Program with funding provided by the California Energy Commission and the U.S. Department of Agriculture Water Quality Initiative. These publications are intended to help California water managers address a range of practical irrigation issues. Other titles in the series include: Agricultural Salinity and Drainage; Surge Irrigation; Irrigation Pumping Plants; and Drip Irrigation for Row Crops.

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Introduction:

Micro-irrigation - applying small amounts of water slowly and frequently through emitters spaced along polyethylene tapes or tubing - makes it possible to apply water precisely where it is needed and to apply it with a high degree of uniformity, lessening both surface runoff - excess water running off the lower end of the field - and deep percolation - water flowing down through the soil past the root zone where it can no longer be used by the plant.

Converting from conventional surface irrigation to a micro-irrigation system therefore can greatly improve how evenly water is applied over a field and how efficiently water is used. But this potential can only be realized if the micro-irrigation system is carefully designed, maintained, and managed. This handbook has been developed to provide the information necessary to help
water managers achieve that goal. Intended as a practical guide to selecting and operating a micro-irrigation system, the handbook is written so as to be easily understandable to anyone with a general agricultural background. While the book is aimed primarily at micro-irrigation system managers, irrigation system designers and others interested in micro-irrigation may also find the handbook useful.

The information presented here is grounded both in technical research and in our own field experience. While the separate chapters complement one another when taken as a whole, each also stands on its own so that it is not necessary to start at the beginning of the book and read all the way through. We suggest instead that the reader use the table of contents or turn to the chapter "Components and Considerations: An Overview" for help in locating topics of interest.

Questions or comments:

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